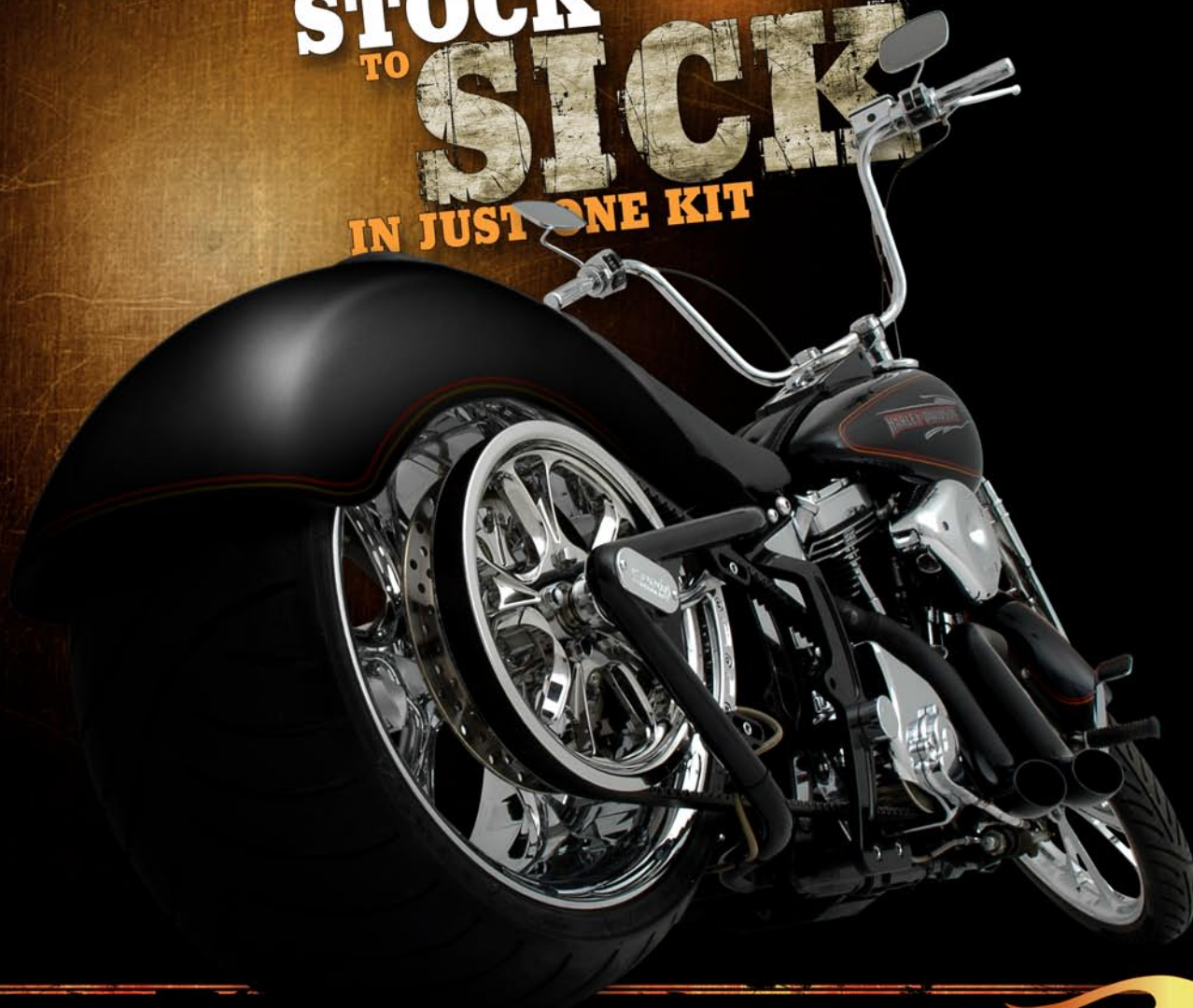


# BAKER 300

wide tire kit

## EVO INSTALLATION INSTRUCTIONS

FROM  
**STOCK**  
TO  
**SICK**  
IN JUST ONE KIT



**BAKER**  
DRIVETRAIN

# BAKER 300™ INSTALLATION INSTRUCTIONS

## TABLE OF CONTENTS:

2. Overview
3. BAKER 300™ Wide Tire Kit Included Parts
4. BAKER 300™ Wide Tire Kit Included Parts Detail
5. BAKER 300™ Wide Tire Kit Included Parts Detail (Continued)
6. Parts Not Included (But Required for Kit)
7. Skills, Knowledge & Tools
8. Checklist
9. Stock Motorcycle Disassembly
10. Stock Motorcycle Disassembly (Continued)
11. BAKER 300™ Assembly | Transmission
12. BAKER 300™ Assembly | Transmission (Continued)
13. BAKER 300™ Assembly | Swingarm
14. BAKER 300™ Assembly | Primary
15. BAKER 300™ Assembly | Primary (Continued)
16. BAKER 300™ Assembly | Frame Components
17. BAKER 300™ Assembly | Rear Wheel
18. BAKER 300™ Assembly | Pulley Cover
19. BAKER 300™ Assembly | Rear Wheel
20. BAKER 300™ Assembly | Rear Fender
21. BAKER 300™ Assembly | Finish Line
22. Directory of BAKER 300™ Compatible Products
23. Terms
24. Disclaimer

## OVERVIEW



**THE BAKER 300™ WIDE TIRE KIT, FOR EVO™, IS DESIGNED FOR USE WITH ALL STOCK 1991-1999 HARLEY-DAVIDSON® SOFTAIL™ MODELS. THE BAKER 300™ KIT WHEN INSTALLED WITH THE ADDITIONAL PARTS AS LISTED EFFECTIVELY CONVERTS A SOFTAIL FROM A 5-SPEED, LEFT SIDE DRIVE, STOCK REAR TIRE MOTORCYCLE INTO A 6-SPEED, RIGHT SIDE DRIVE, FAT TIRE CUSTOM.**

### FEATURES



#### 6-SPEED TRANSMISSION WITH DD6 RSD TECHNOLOGY

The BAKER RSD DD6 transmission provides smoother shifting, positive neutral-finding, and reduced cruising RPM on the highway as compared to the stock 5-speed. With proven technology and helical 4th, 5th, and 6th gears, town and highway cruising is noise-free. No disassembly of the stock 5-speed is required.



#### RIGHT SIDE DRIVE

Right side drive is the critical variable in the equation of balancing a fat tire custom motorcycle. Left side drive fat tire motorcycles rely on offsetting (moving over) the engine, transmission, and/or the primary drive which moves the powertrain center-of-mass to the left and creates an inherent balance bias to the left. Left turn and right turn body English is noticeably different with left side drive; not so with right side drive.

#### 300 SERIES TIRE

The street look of a fat rear tire is the essential element of a custom American motorcycle. The 300mm tire with its 12-inch wide stance has pornstar caliber curbside appeal with an aspect ratio that screams speed.



## INCLUDED PARTS

### PARTS PROVIDED WITH THE BAKER 300™ KIT



**SWINGARM ASSEMBLY:** Durable black and clear powdercoated finish on swingarm and splash guard, heat treated 4140 steel 1" axle, and spherical pivot bearings.



**REAR FENDER:** Media blasted finished, heavy-duty 13 gauge steel with 3/8" thick hidden internal struts.



**DD6 RSD TRANSMISSION ASSEMBLY:** Polished, wrinkle black or silver finish complete with pulley, or 24 tooth chain sprocket optional, chrome pulley cover/shroud, chrome cable ball ramp clutch actuator, or Hydraulic Actuator. Newly-designed BAKER billet top cover with hidden vent. No assembly required. Speedometer recal box included.



**ALL NECESSARY HARDWARE:** Note: Only one of each part shown here. See Page 4 and 5 for quantities of each part.

# BAKER 300™ INCLUDED PARTS DETAIL



3/4" - 16 x 5"  
Swingarm Pivot Bolt  
Part # 15373  
(Qty. 1)



Dog Leg Spacer  
Part # WT865  
(Qty. 1)



1" Axle Collar  
Part # 99936  
(Qty. 2)



Right Side Wheel Spacer  
(w/ belt applications only)  
Part # WT893P  
(Qty. 1)



3/8" - 16 x 3"  
Dog Leg Bolt  
Part # 37C300KSSPR  
(Qty. 2)



WTK Fender  
Part # WT880  
(Qty. 1)



3/8" - 24 x 1/4"  
Axle Adjustment Set Screw  
Part # 37C25KKCS  
(Qty. 2)



3/8" - 24 x 1-1/4"  
Axle Adjustment Screw  
Part # 37125KKCS  
(Qty. 2)



1/2" - 20 x 1-1/2"  
Fender-To-Frame Bolt  
Part # 50150KBCPR  
(Qty. 2)



Speedometer Recalibration Box  
Part # 95E-56  
(Qty. 1)



5/16-18-Nylock  
Part # 37021  
(Qty. 4)



3/8" - 16 x 1-1/2"  
Fender-To-Frame Bolt  
Part # 37C150KBCPR  
(Qty. 4)



1/2" AN-Washer  
Fender-To-Frame  
Part # 9900272  
(Qty. 2)



Pivot Bolt Cover  
(Left and Right Side)  
Part # WT869C (Qty. 2)



Comp Sprocket  
Part # 158-56  
(Qty. 1)



5/8-18 x 1"  
Grade 8 Axle Retaining Bolt  
Part # 99618  
(Qty. 2)



10-32 x 1/2"  
Right Pivot Cap Set Screw  
Part # 73248R  
(Qty. 2)



5/16-18 x 3/4"  
Part # 31C75KBCS  
(Qty. 4)



3/8" - AN Washer  
Fender Washer  
Part # AN960C616  
(Qty. 6)



Chain Tensioner Assembly  
(Qty. 1)



5/16" AN Washer  
Part # 6100  
(Qty. 4)



Right Side Wheel Spacer  
(w/ chain applications only)  
Part # WT893P  
(Qty. 1)



Right-Side Brake Bracket  
to Axle Spacer  
Part # WT905 (.320" - PM Wheels)  
Part # WT907 (.218" - Xtreme Wheels)  
(Qty. 1 ea.)



Swingarm and Splashguard Assembly  
Part #'s: WT881B/WT882B  
(Qty. 1)



1/4" - 20 x 1"  
Ignition Module  
Socket Head Cap Screw  
Part # 25C100KCSS/P  
(Qty. 2)

# BAKER 300™ INCLUDED PARTS DETAIL



Brake Bracket Spacer  
Part # WT906P (.590" for PM Wheels)  
Part # WT908P (.430" for XM Wheels)  
(Qty. 2)



Seat Nut w/ Clip  
Part # 59768-97 (H-D)  
(Qty. 1)



Transmission  
RSD BAKER Direct Drive 6-Speed  
Part # R701-DD6  
(Qty. 1)



Axle Cover  
Part # WT854C  
(Qty. 2)



Dog Leg  
Part # WT857B  
(Qty. 1)



1/4" - 20 x 1-1/4"  
Zinc-Plated  
ECM Socket Head Cap Screw  
Part # 93207  
(Qty. 4)



10 - 32 x 3/8"  
Axle Cover Bolt  
Part # 10F37KBCPR  
(Qty. 4)



1" Axle  
Part # WT859  
(Qty. 1)



84-Pitch Primary Chain  
Part # 4282-84-56  
(Qty. 1)



WTK Pulley Cover  
Part # WT858  
(Qty. 1)



5/16" - 18 X 1 1/2"  
Brake Bracket Bolt  
Part # 31C150KCSPR  
(Qty. 2)



Left Side Wheel Spacer  
(1.950") Xtreme Machine: Part # WT894AP  
(1.389") Performance Machine: Part # WT904AP  
(Qty. 1 each)



Pivot Tube Spacer  
Part # 99413  
(Qty. 2)

## PARTS NOT INCLUDED

### **ADDITIONAL PARTS REQUIRED (NOT PROVIDED WITH THE BAKER 300™ KIT)**

**REAR WHEEL WITH 300MM TIRE, PULLEY, AND ROTOR:** Any 10.5" wheel from Performance Machine™ Forge-Tec™ or Extreme Machine™ is fully compatible with the BAKER 300™ Wide Tire Kit. See the Contacts Directory in the back of the installation manual for contact listings. Other wheel companies' products may be compatible, but at the time of this writing BAKER Drivetrain Engineering has only validated fitment of the aforementioned companies.

**DRIVESIDE REAR BRAKE SYSTEM:** The stock rear caliper and brake rotor is not compatible with the BAKER 300. A Performance Machine™ driveside rear brake system (p/n 1284-00074A-1-CH) can be purchased directly from Performance Machine™.

**TWO BRAIDED STEEL BRAKE LINES AND BANJO FITTINGS:** Russell™ 28" and Russell™ 16" brake lines. Good Ridge™ rear brake switch "T" and 10mm #3 male 35° Banjo fitting (See page 8 for Rear Caliper Brake Checklist and page 24 for BAKER™ 300 Compatible Product Directory).

**EXHAUST SYSTEM:** Right side drive compatible to date, BAKER Engineering has tested and validated fitment of exhaust systems from several manufacturers. See the Directory of BAKER 300™ Compatible Products on page 22.

**REAR TAILLIGHT/LICENSE PLATE ASSEMBLY:** We recommend taillights that will mount to the swingarm, footpeg, or derby cover like the ones shown below available from Drag Specialties™.



Example footpeg-mounted style



Example swingarm mounted style



Example derby cover style

**HERITAGE SOFTAIL™ AND FAT BOY™ SEATS (or any seats w/ side-mounted tabs):** Because these models utilize additional seat mounts on the side of the frame, the factory seats on the Heritage Softail™ and Fat Boy™ are not compatible with the BAKER 300™ kit. See optional parts for factory seats that will work.

### **OPTIONAL PARTS (RECOMMENDATIONS NOT PROVIDED WITH THE BAKER 300™ KIT)**

**SEAT:** Harley-Davidson® offers a number of custom-styled contemporary seats like the ones shown in the H-D® Parts and Accessories Catalog. The Stripper™, Badlander™ and Sidekick™ are nicely styled and technically compatible with the BAKER 300™.

**LEGEND AIR RIDE SYSTEM:** An adjustable air suspension system for Softails™, minor fabrication may be required.  
**FRONT WHEEL, BRAKE ROTOR, AND CALIPER:** To complete and finish off the BAKER 300™ transformation, you may want to select a front wheel rotor and Performance Machine™ caliper assembly to compliment and match the rear.

# SKILLS, KNOWLEDGE & TOOLS

## REQUIRED READING

It is highly recommended that the following H-D® publications are available for your reference as they are referred to in the instructions.

- ☐ Factory Service Manual for your year and model
- ☐ Factory Parts Manual for your year and model
- ☐ Genuine Parts and Accessories Catalog

## SKILL LEVEL

As with most things in life, there is no substitute for skill and experience. We highly recommend that only a seasoned experienced technician with an extensive background with Harley-Davidson® motorcycles and the American custom aftermarket successfully complete the BAKER 300™ installation.

## SPECIALTY TOOLS

- ☐ **PULLEY NUT SOCKET:** Many tool boxes don't have one of these. To make your life a bit easier, we make the mother of all pulley nut sockets, which is made from one piece of bar stock and hard chrome plated for a super tough finish. The throat of our wrench is deeper than other sockets to enable service work on right-side-drive and left-side-drive 5 & 6 transmissions. BAKER Part # TOOLD-56
- ☐ Sawzall or cutoff wheel
- ☐ 1<sup>3/16</sup>" socket (for clutch nut)
- ☐ 1<sup>1/2</sup>" socket (for compensating sprocket nut)



# CHECKLIST

**PRIOR TO DISASSEMBLY OF YOUR STOCK SOFTAIL™ TO BEGIN THE BAKER 300™ TRANSFORMATION, IT IS RECOMMENDED THAT THE FOLLOWING CHECKLIST BE UTILIZED TO MAKE SURE YOU HAVE ALL THE NECESSARY PARTS TO COMPLETE THE JOB:**

## BAKER 300™ WIDE TIRE KIT

- ☐ Transmission Assembly
- ☐ Rear Fender Kit
- ☐ Swingarm and Hardware Kit

## ADDITIONAL PARTS (NOT INCLUDED WITH THE KIT)

- ☐ 10.5" wide rear wheel
- ☐ Avon™ or Metzeler™ 300 tire
- ☐ Rear wheel pulley, with bolts (for 1-1/8" TwinCam belts)
- ☐ Rear wheel brake rotor, with bolts
- ☐ Driveside rear brake system : Performance Machine™ Caliper and Bracket p/n 1284-00074A-1
- ☐ 1-1/8" TwinCam Softail™ drive belt

## Rear caliper brake lines and fitting Available through Drag Specialties™

- |   |                                     |   |
|---|-------------------------------------|---|
| <input type="checkbox"/> Russell  | SS DOT Brake Line 16"               | P/N 58362S  |
| <input type="checkbox"/> Russell  | SS DOT Brake Line 26" W/CL          | P/N 58092S  |
| <input type="checkbox"/> Drag Specialties                                 | 10MM BANJO BOLT                     | P/N DS098109  |
| <input type="checkbox"/> Drag Specialties                                 | 10MM BANJO #3 MALE 35°              | P/N DS098150  |
| <input type="checkbox"/> Good Ridge                                       | Rear Brake Switch "T"               | P/N MCHD014   |
| <input type="checkbox"/> Drag Specialties                                 | 10MM BANJO #3 MALE 90°              | P/N DS098151  |
| <input type="checkbox"/> Exhaust system                                   |                                     |   |
| <input type="checkbox"/> Exhaust seals                                    |                                     |   |
| <input type="checkbox"/> Rear taillight/license plate assembly            |                                     |   |
| <input type="checkbox"/> Transmission and primary oil                     |                                     | Spectro Heavy Duty Platinum 6-Speed Transmission Lubricant--<br>Spectro p/n R.HDPG6 and<br>Spectro Heavy Duty Primary Chain<br>Case Oil-Spectro p/n R.GAPCL |
| <input type="checkbox"/> DOT 5 brake fluid                                |                                     | Spectro DOT 5-Spectro p/n GABF  |
| <input type="checkbox"/> Seat (optional)                                  |                                     |   |
| <input type="checkbox"/> Front wheel, brake rotor, and caliper (optional) |                                     |   |
| <input type="checkbox"/> Hydraulic Options: -3/8"-24 Banjo Bolt           |                                     |   |
|   | -10mm Banjo fitting                 |   |
|   | - 11/16" Bore Clutch Lever Assembly |   |
|   | - #3 Brake Line                     |   |
| <input type="checkbox"/> 530 Chain Final Drive (optional)                 |                                     |   |

# STOCK MOTORCYCLE DISASSEMBLY

**WITH A COMPLETED BAKER 300™ COMPONENT CHECKLIST, DISASSEMBLY OF THE STOCK SOFTAIL™ CAN COMMENCE.**



## 1. **DISCONNECT AND REMOVE THE BATTERY**

2. **DRAIN FLUIDS:** The transmission and primary drive oils need to be completely drained. Refer to the H-D® Factory Service Manual.
3. **ELEVATE THE REAR WHEEL** off the ground by positioning the motorcycle on a suitable jack or motorcycle lift. The motorcycle will remain in this position until the transformation from Page 9 to Page 20 is complete. So make sure it is safe, stable and there is 5-feet-or-so of peripheral room to move about.
4. **DISASSEMBLE:** Remove the transmission, primary drive housing, clutch components, rear tire, swing arm, exhaust pipes, and rear fender. Refer to the Factory Service Manual. Also, remove the rear brake caliper and brake line all the way up to the rear master cylinder. The primary drive components will be reinstalled as a part of the BAKER 300™ transformation.**FIGURE 1**
5. **CUTTING FENDER SUPPORTS:** The fender struts must be removed in order for the new BAKER 300™ fender to fit.

Bolt into place the fender support cutting templates (marked L for left and R for right and provided in the kit) to the sides of the frame by using the bolts from the support covers. L and R must face out for correct template orientation. Use a reciprocating saw (aka sawzall) or abrasive cutoff wheel to remove the supports as shown in **FIGURE 2**. With a large flat file, break (smooth off) all sharp corners and edges. The resultant bare metal will not be visible once the BAKER 300™ fender is installed.



**CHECK NEWLY CUT FRAME FOR FENDER FITMENT AT THIS POINT BEFORE PROCEEDING.** Additional material may need to be removed for proper fitment. As an anti-corrosion measure, paint the exposed bare metal with primer and/or paint.

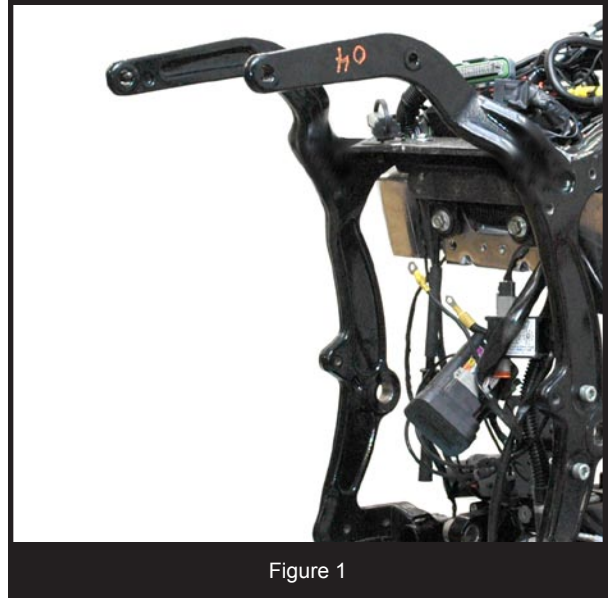


Figure 1

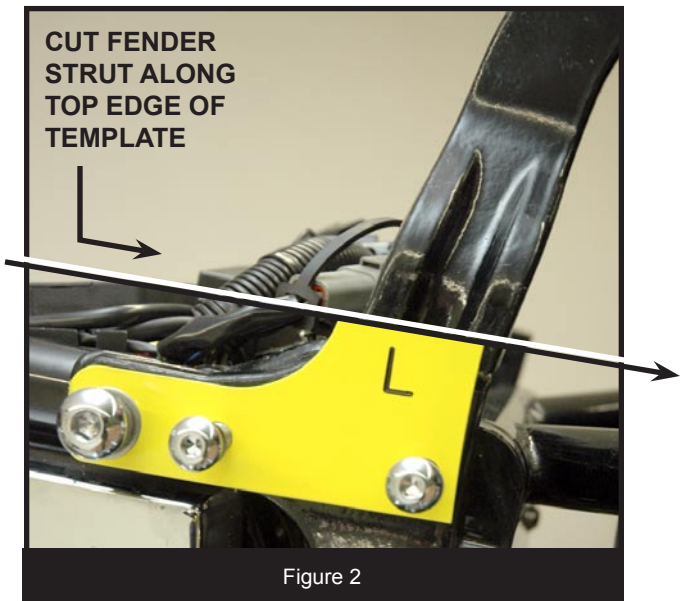


Figure 2

**(DISASSEMBLY CONTINUED ON NEXT PAGE)**

# STOCK MOTORCYCLE DISASSEMBLY

## (DISASSEMBLY CONTINUED)

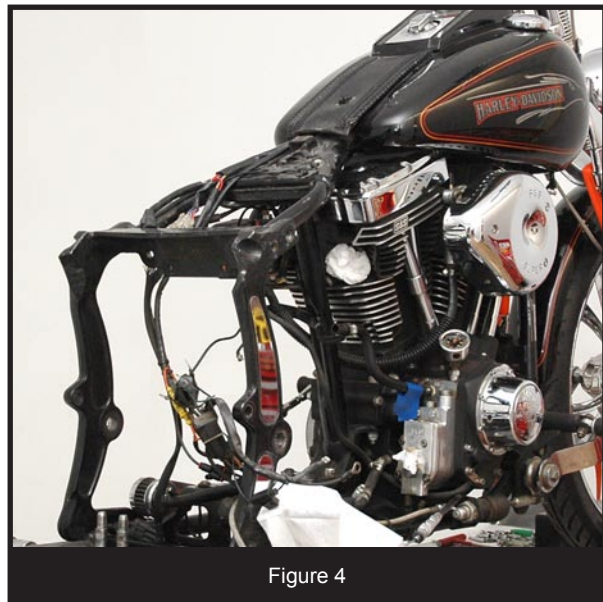
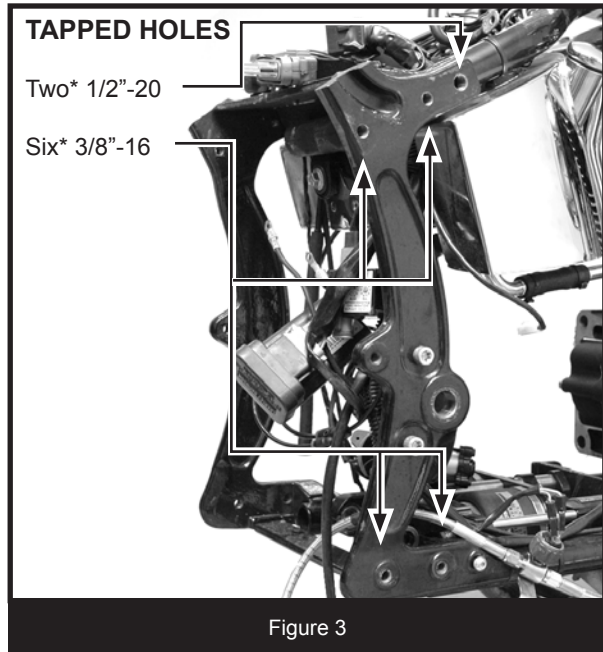
7. **CHASING THE THREADS ON FRAME:** To aid in the assembly process use a tap and tap cutting fluid to clean out the threads of the fender and dog leg attachment holes in the frame. **FIGURE 3.** Use tap sizes:

☐ 1/2"-20

☐ 3/8"-16

**NOTE:** The quantity of tapped holes in FIGURE 3 to reflect the total amount on both sides.

8. **FINAL DISASSEMBLY CHECKS:** With the completion of the disassembly process, the motorcycle should look like **FIGURE 4.**



## BAKER 300™ ASSEMBLY

**WE HIGHLY RECOMMEND THAT THE ENTIRE BAKER 300™ WIDE TIRE KIT BE INSTALLED AND "MOCKED UP" TO VALIDATE FITMENT AND FUNCTION. AFTER A SUCCESSFUL MOCK UP IS COMPLETE, THE BAKER 300™ FENDER CAN BE REMOVED AND PAINTED TO MATCH THE TANK AND FRONT FENDER.**

### TRANSMISSION:

1. **PULLEY COVER:** Remove the pulley cover and actuator assembly from the transmission. Set the pulley cover and pulley aside for now. It will be reinstalled towards the end of the assembly process.
2. **SPEED SENSOR:** Reinstall the stock speed sensor with spacer provided in kit for proper sensor to gear clearance and function. **FIGURE 5 & 6.**

*(STEPS CONTINUED ON NEXT PAGE)*



Figure 5



Figure 6

## BAKER 300™ ASSEMBLY

### TRANSMISSION (CONTINUED):

3. **TRANSMISSION INSTALLATION:** Before installing transmission in the motorcycle place a piece of masking tape over both ends of the mainshaft so that the clutch actuator rod does not fall out and become damaged. Install transmission through the left side of motorcycle. **FIGURE 8A.** Gently maneuver transmission into position



Figure 7



# BAKER 300™ ASSEMBLY

## SWING ARM:

1. **SPLASH GUARD:** Remove the splash guard from the BAKER 300™ swing arm and set aside with the provided hardware for later installation.
2. **INSTALL DOGLEG:** Install BAKER 300™ Dogleg using parts supplied in the kit:
  - (1) Pivot Bolt Hex Head 3/4" - 16" x 5" QTY: 1
  - (2) Chrome SHCS Bolts 3/8" - 16x3" QTY: 2Also use fender bolts for alignment of dogleg
  - (1) 1/2" - 20 x 1 1/2"
  - (2) 3/8" - 16 x 1 1/2"
3. **FIRST INSTALL 1 1/8" REAR DRIVE BELT AROUND THE TRANSMISSION:** Install dogleg onto right side of frame. Slide pivot bolt supplied in kit with red thread lock and stock lock washer, through the BAKER 300™ dogleg. Install two 3/8"-16x3" bolts with blue thread lock. Install fender bolts loosley (just for alignment purposes). Make sure belt is in between dogleg. **FIGURE 8.**
4. **INSTALL SWINGARM:** Using the provided BAKER Pivot Tube and Swingarm Spacers, install the swingarm. Remember that the swingarm spacers go between the pivot bearings and provided, threaded pivot center tube. Use stock left side pivot bolt and washers with red thread lock. Tighten both pivot bolts per Factory Service Manual. Tighten bottom dogleg bolts to 21-31ft/lbs. Remove fender bolts.

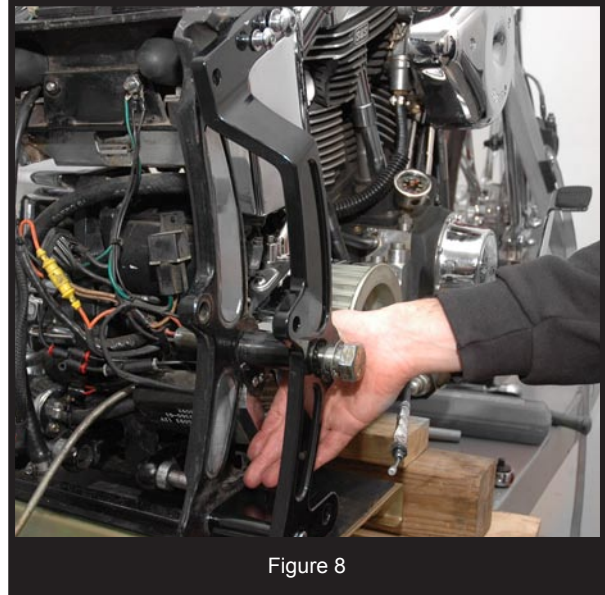


Figure 8

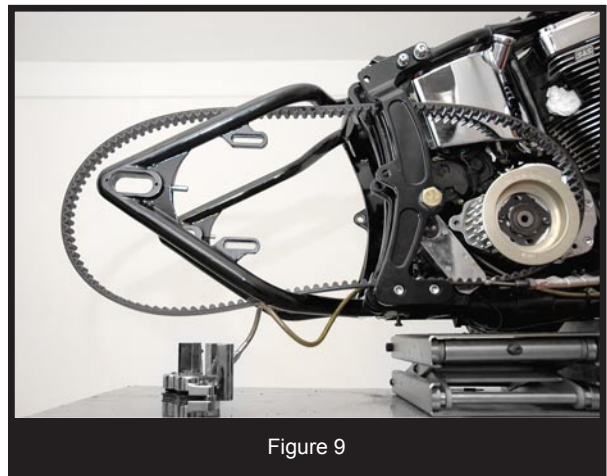


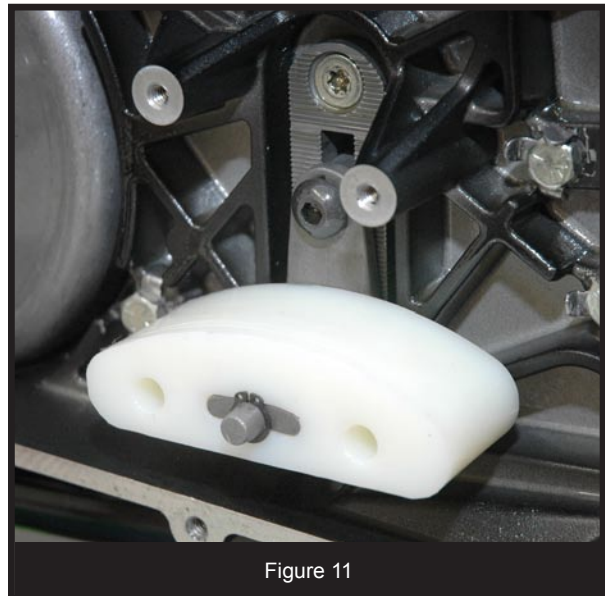
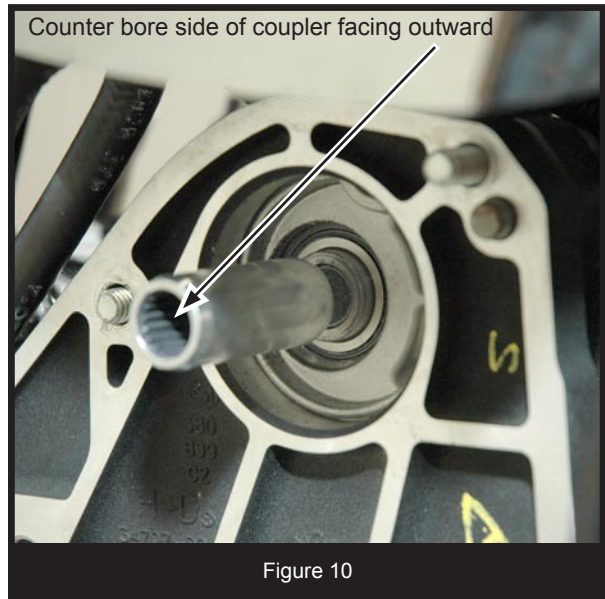
Figure 9

# BAKER 300™ ASSEMBLY

## PRIMARY:

1. **SHIFTER LINKAGE ARM:** Install forward control factory shifter linkage to transmission shifter arm.
2. **INNER PRIMARY:** Install inner primary per service manual. After installing inner primary, shift transmission by hand through the gears to make sure linkage will not hit the inside of the inner primary.
3. **TRANSMISSION:** Tighten transmission bolts per Service Manual
4. **STARTER:** Bolt to inner primary per Factory Service Manual. **FIGURE 10.**
5. **DD6™ CHAIN TENSIONER ANCHOR PLATE:** Install chain tensioner assembly (provided in kit) **FIGURE 11** (removal of anchor plate is necessary to install new tensioner nut. Use red thread lock and torque anchor plate to 12-14 ft-lb. or 16.3-19.0 nm.)
6. **DD6™ CHAIN TENSIONER SHOE:** Install tensioner shoe and bolt in place loosely at this time.
7. **PRIMARY CHAIN & CLUTCH BASKET:** Install compensating sprocket, chain, and clutch basket. (compensating sprocket and chain provided in kit.) (Do not use thread lock at this time.) Torque compensating sprocket and clutch basket nut per Factory Service Manual. Tighten chain as tight as you can.

**(PRIMARY ASSEMBLY CONTINUED ON NEXT PAGE)**



## BAKER 300™ ASSEMBLY

### PRIMARY ASSEMBLY (CONTINUED):

8. **PRIMARY CHAIN ALIGNMENT:** Perform a sprocket alignment check at this time. Refer to Factory Service Manual. (A different thickness washer may be required for proper alignment of primary chain. Which can be purchased at your local Harley Davidson® dealer) Once verification of correct alignment has been verified loosen primary chain, remove compensating sprocket nut and clutch basket nut. Apply (red) thread lock to compensating sprocket nut and clutch basket nut and torque to factory specifications.
9. **CHAIN ADJUSTMENT:** Remove chain tensioner bolt and apply (red) thread lock, adjust chain per service manual, and torque to 21-29 ft-lbs. **FIGURE 13.**
10. **OUTER PRIMARY:** Install outer primary per service manual.
11. **OIL TANK:** Install oil tank and lines per Factory Service Manual



Figure 13

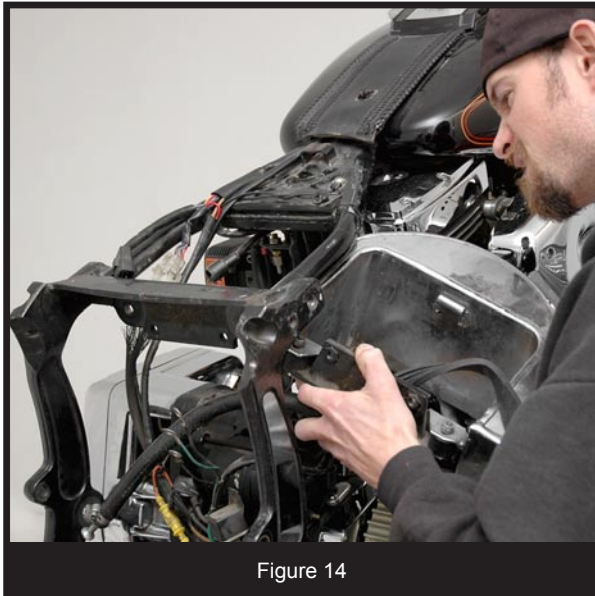


Figure 14

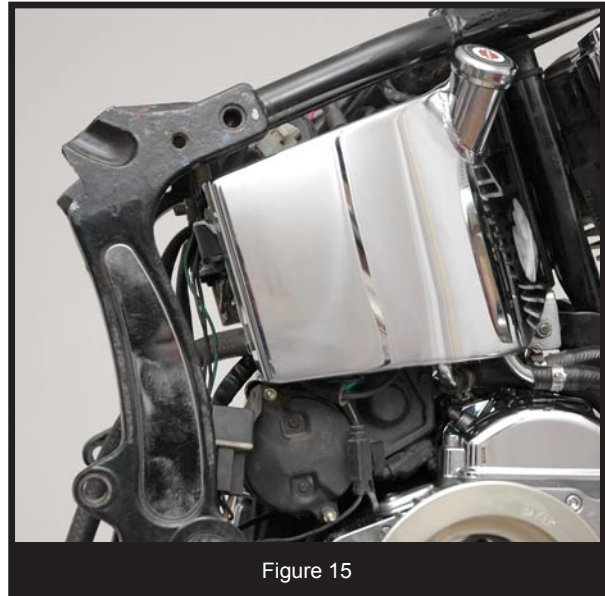


Figure 15

## BAKER 300™ ASSEMBLY

### FRAME COMPONENTS:

1. **REAR BRAKE LINE:** Install brake lines, fittings, and brake switch from rear master cylinder to the swing arm. (Running the brake line along the frame as the original was located. Use a 16" flexible brake line from the master cylinder to brake light switch 'T'. Use a 26" flexible line from brake 'T' to rear caliper. Routing the line through the swing arm to later be placed in the 'notch' in the provided BAKER 300™ splashguard.
2. **SPEEDOMETER RE-CALIBRATION:** Install the provided speedometer re-calibration box between to the speed sensor harness and the speed sensor. (See Re-cal box for instructions and adjustment info.) **FIGURE 16**
4. **SPLASHGUARD:** Reinstall splash guard with the provided hardware making sure to route the rear brake line through the notch in the bottom right of the splash guard. Torque to 220 in-lbs.



Figure 16



# BAKER 300™ ASSEMBLY

## PULLEY COVER AND FLUIDS:

- 1. MECHANICAL CLUTCH ACTUATOR COVER:** Remove outer mechanical actuator cover with gasket from chrome pulley cover. Install stock clutch cable through chrome actuator cover. (Do not over tighten clutch cable to actuator cover) Hook cable end to ball and ramp assembly. Put a liberal amount of grease around the ball and ramp and feral. Make sure you seat ball and ramp properly in actuator cover. **FIGURE 17.**
- 2. HYDRAULIC CLUTCH ACTUATOR COVER**  
The Hydraulic Clutch will arrive with the gasket and bolts in place, torqued to 110 in-lbs with blue thread lock. The o-rings around the piston are already lubed and it is ready to be bolted to the transmission bearing door along with the pulley cover. The actuator can be bled in the manner similar to the brakes and the hydraulic fluid port is designed for use with a 3/8"-24 Banjo Bolt and Dot 5 brake Fluid Spectro P/N-GABF.
- 3. PULLEY COVER:** Apply (blue) thread lock to pulley cover bolts and then reinstall pulley cover. Torque the bolts to 200 in-lbs. (3pc 5/16-18x1" Bolts). Apply (blue) thread lock to actuator cover bolts and reinstall actuator cover with gasket to chrome pulley cover. Torque to 110 in-lbs.
- 4. CLUTCH ADJUSTMENT:** Adjust clutch and clutch cable per Factory Service Manual.
- 5. PRIMARY FLUID:** Fill primary fluid per service manual.
- 6. TRANSMISSION FLUID:** Fill transmission fluid with 20-24 fluid oz of gear oil.BAKER recommends Spectro Heavy Duty Platinum 6 speed transmission fluid Spectro P/N- R.HDPG6
- 7. ENGINE OIL:** Add engine oil per service manual.

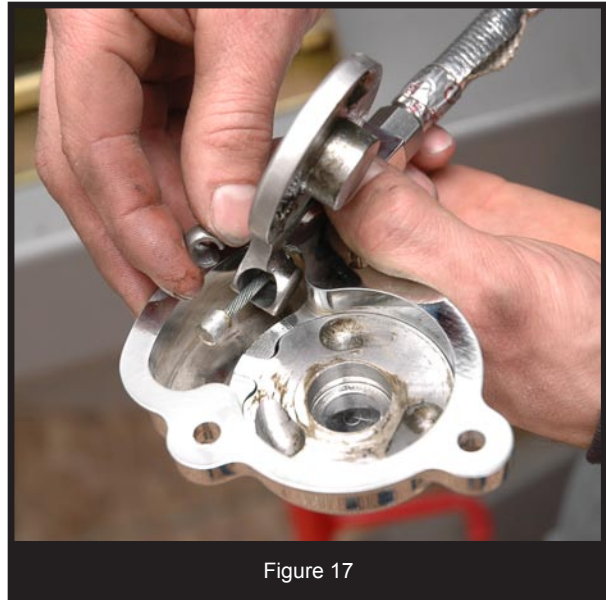


Figure 17



Figure 18



# BAKER 300™ ASSEMBLY

## REAR WHEEL:

1. **BRAKE CALIPER:** Install Performance Machine® drive side brake caliper on rear wheel brake rotor.



**(HOLD CALIPER CAREFULLY NOT TO DAMAGE WHEEL OR BRAKE ASSEMBLY DURING INSTALLATION)**

2. **RIGHT WHEEL SPACER:** Install provided right side wheel spacer in preparation for bolting on BAKER 300™ driveside brake bracket.
3. **REAR WHEEL:** Install rear wheel into the swing arm with provided left side wheel spacer and the BAKER 300™ driveside brake bracket axle spacer provided in the kit. Make sure to first get the drive belt 'over' the pulley before the wheel assembly is fully in place. **SEE FIGURE 20 FOR SPACERS AND FIGURE 19 FOR EXPLODED VIEW DIAGRAM.**
4. **REAR WHEEL AXLE:** Cover the provided BAKER 300™ axle with bearing grease or anti-seize as a rust inhibitor and assembly aid.
5. **BRAKE BRACKET BOLTS:** Apply (blue) thread lock to provided brake bracket bolts and finger tight brake bracket to swing arm at this time being sure to use the provided bolt spacer between to the bracket and the swing arm tabs. **FIGURE 22A**
6. **AXLE BOLTS:** Apply (red) thread lock to axle bolts and put in place with the provided hardened steel axle collars. Do not fully tighten at this time in preparation for wheel and belt tracking adjustments.
7. **REAR WHEEL ALIGNMENT:** Adjust rear belt tension and wheel alignment with the provided set screws already installed in the BAKER 300™ swingarm, per Factory Service Manual. Make sure to spend the time to spin the rear tire by hand to fully ensure that the belt is tracking straight on the motorcycle.



**FAILURE TO DO THIS COULD RESULT IN BRAKE ASSEMBLY DAMAGE, REAR PULLEY DAMAGE, TRANSMISSION PULLEY DAMAGE, OIL TANK DAMAGE, A BROKEN AND/OR DAMAGED BELT , AND/OR PERSONAL INJURY!**

8. **TORQUE BOLTS:** Torque axle bolts to 40-45 ft-lb. Torque brake bracket bolts to 220 in-lbs. Install stainless axle set screws with (blue) thread lock (snug).
9. **BAKER DRIVETRAIN™ AXLE COVERS:** Install rear axle covers provided in kit. Apply (blue) thread lock to the provided axle cover bolts before installing.

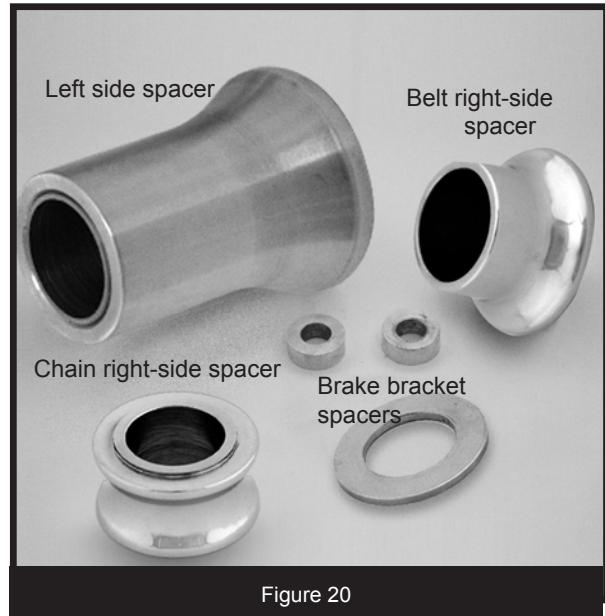
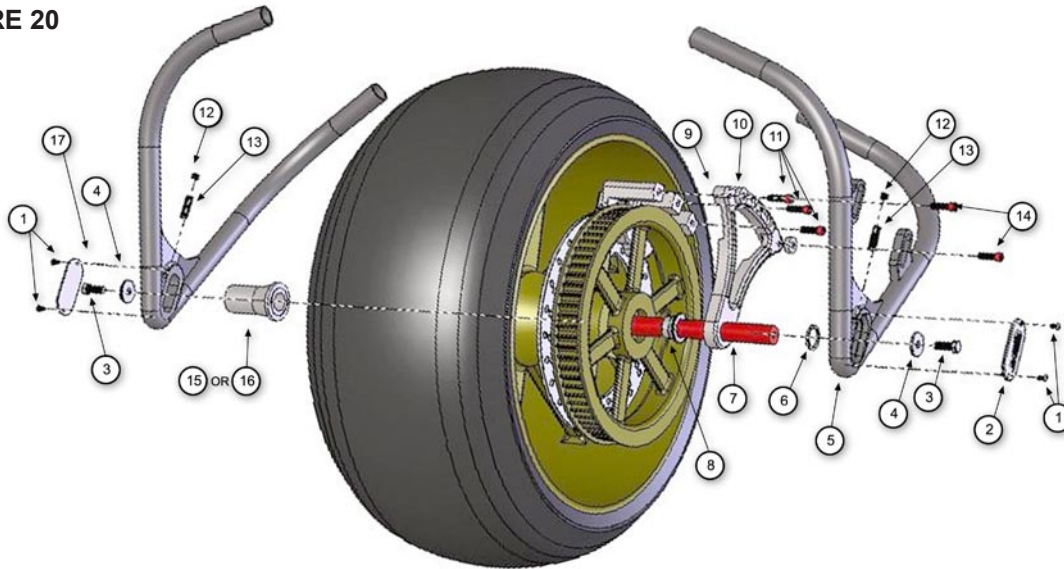


Figure 20

# BAKER 300™ ASSEMBLY

FIGURE 20



## DESCRIPTION

## P/N

1. 8-32 x 3/8" Axle Cover Bolt	10F37KBCPR
2. Axle Cover	WT854
3. 3/8" - 16 x 1" Grade 8 Axle Retaining Bolt	115105
4. 1/8 " Axle Washer	10705-02574
5. Swing Arm	WT891
6. Performance Machine™ Brake Bracket Axle Spacer Xtreme Machine™ Bracket Axle Spacer	WT9059 WT907
7. 1" Axle	WT859
8. Right Side Wheel Spacer (Belt) Right Side Wheel Spacer (Chain)	WT893 WT898
9. Drive Side Brake Bracket	----
10. Performance Machine™ Brake Bracket Spacer Xtreme Machine™ Brake Bracket Spacer	WT906 WT908
11. Caliper Bolts (Wheel Company Provided)	----
12. 3/8" -16 x 1/4" Axle Adjustment Set Screw	37C25KKCPR
13. 3/8" - 16 x 1-1/4" Axle Adjustment Screw	135151
14. 5/16" - 18 x 1-1/4" Brake Bracket Bolt	31C150KCSPR
15. Left Side Wheel Spacer for Xtreme Machine™ Wheels	WT894A
16. Left Side Wheel Spacer for Performance Machine™ Wheels	WT904A

# BAKER 300™ ASSEMBLY

## BAKER 300™ REAR FENDER:

1. **REAR FENDER:** Install fender by sliding the right side over the dogleg and the left mounting flange flush with the side of the frame. **FIGURE 21** Using bolts provided, apply (blue) thread lock (four 3/8-16x11/2, four 3/8 AN washers, two 1/2-13x11/2, and two 1/2 an washers) and torque to 21-31 ft-lbs.
2. **ENGINE MODULE:** Install ignition module on rear fender with bolts provided, two 1/4"-20x1" (Ignition Module only), four 1/4" an washers, and four 1/4" nylock nuts) Torque to 8-10 ft-lbs. Install seat nut with clip.
3. **BAKER 300™ PIVOT CAPS:** Install pivot caps using (blue) thread lock on pivot cap set screws. The pivot cap with the 'sleeve' inside of it is for use on the 5/8-11 bolt head on the right side.
4. **IGNITION HARNESS:** Hook up ignition module to factory wiring harness per Factory Service Manual. **FIGURE 22**



Figure 21



Figure 22

## BAKER 300™ ASSEMBLY

### FINISH LINE:

1. **REAR BRAKE LINE:** Route brake line to rear caliper along inside of swing arm. **FIGURE 23**



**MAKE SURE THAT REAR BRAKE LINE WILL NOT CONTACT BELT IN ANYWAY TAKING INTO ACCOUNT BELT SLAP WHILE RIDING.**

2. **BLEED BRAKES:** Bleed rear brakes per Factory Service Manual.
3. **EXHAUST:** Install exhaust gaskets that are compatible with your exhaust. Install exhaust system of your choice. Take the time to make sure that the exhaust is in full contact with the gasket at the cylinder head and that the exhaust has ample clearance to all parts of the motorcycle. Refer to Factory Service Manual on exhaust flange to cylinder head torque specifications.
4. **BATTERY:** Install the battery.
5. **SEAT:** Install the seat of your choice using the provided seat nut.
6. **CHECK ALL BOLTS AND FLUIDS BEFORE STARTING MOTORCYCLE FOR YOUR PERSONAL SAFETY AND FOR THE MECHANICAL INTEGRITY OF YOUR MOTORCYCLE!**



Figure 23



**THIS COMPLETES THE TRANSFORMATION OF YOUR *SICK* NEW SOFTAIL WITH THE BAKER 300™ WIDE TIRE KIT.**

# DIRECTORY OF COMPATIBLE PRODUCTS

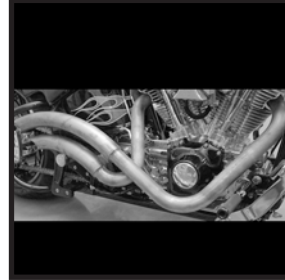
## BAKER 300™ COMPATIBLE EXHAUST PIPES



**EDDIE TROTTA™**  
**THUNDER CYCLES™**



**MARTIN BROTHERS™**  
**TRENDKILLRS RSD™**  
R&D Note: Modified exhaust  
bracket



**MARTIN BROTHERS™**  
**SKIRTLIFTERS™**  
R&D Note: Will not work with  
floorboards



**WEST COAST CHOPPERS™**  
**FU PIPES**



**ODDI™**  
**NASTY PUFFERS™**

**BAKER Drivetrain™**  
9804 E. Saginaw  
Haslett, MI 48840  
1-877-640-2004  
[www.bakerdrivetrain.com](http://www.bakerdrivetrain.com)

**Drag Specialties™**  
1-608-758-1111  
[www.dragspecialties.com](http://www.dragspecialties.com)

**Eddie Trotta's Thunder Cycle Design™**  
1-954-763-2100  
[www.thundercycle.com](http://www.thundercycle.com)

**Harley Davidson Motor Company®**  
1-414-343-4056  
[www.harley-davidson.com](http://www.harley-davidson.com)

**Martin Bros Motorcycles™**  
1-972-709-2552  
[www.martinbrosmotorcycles.com](http://www.martinbrosmotorcycles.com)

**Oddi Cycles™**  
1-203-281-9619  
[www.oddicycles.com](http://www.oddicycles.com)

**Performance Machine Inc.**  
1-800-479-4037  
[www.performancemachine.com](http://www.performancemachine.com)

**West Coast Choppers®**  
1-562-983-6666  
[www.westcoastchoppers.com](http://www.westcoastchoppers.com)

**Xtreme Machine™**  
1-217-291-0200  
[www.xtrememachineusa.com](http://www.xtrememachineusa.com)

**Legend Air Suspension Systems™**  
1-605-737-4200  
[www.legend-airride.com](http://www.legend-airride.com)

**Forge-Tec™**  
1-866.509.0557  
<http://www.forge-tec.com/>



# TERMS

## SPECIAL ORDERS

A minimum \$500 deposit is required with all special orders. Special orders include unique case finishes, unique side door requests (ie; wrinkle black door or no logo).

## ALL OTHER ORDERS

Orders can be pre-paid using VISA, Mastercard or American Express.

Prices shown are F.O.B. Haslett, MI. BAKER™ provides free UPS ground shipping on all retail orders for complete transmissions or transmission kit. UPS air shipment is available upon request. Customer is responsible for air shipment premiums.

## LIMITED WARRANTY

BAKER™ Inc. transmission assemblies, transmission kits, and wide tire kits are guaranteed to the original purchaser to be free of manufacturing defects in materials and workmanship for a period of 2years/24,000 miles - whichever is sooner for the kit and 5 years/50,000 miles - whichever is sooner for the transmission.

If the product is found by BAKER™ to be defective, such products will, at the option of BAKER™, be replaced or repaired at cost to BAKER™.

In the event warranty service is required, the original purchaser must call or write BAKER™ immediately with the problem.

If it is deemed necessary for BAKER™ to make an evaluation to determine whether the transmission assembly or transmission kit is defective, the entire transmission assembly, whether originally purchased as an assembly or kit, must be properly packaged and returned prepaid to BAKER™ with a copy of the original invoice of purchase.

If after an evaluation has been made by BAKER™ and a defect in materials and/or workmanship is found, BAKER™ will, at BAKER's option, repair or replace the defective part of the assembly.

Warranty card must be returned within 45 days of purchase to be valid.

## ADDITIONAL WARRANTY PROVISIONS

This limited warranty does not cover labor or other costs or expenses incidental to the repair and or replacement of BAKER™ products. This warranty does not apply if one or more of the following situations is judged by BAKER™ to be relevant: improper installation, accident, modification (including but not limited to use of unauthorized parts), racing, high performance application, mishandling, misapplication, neglect (including but not limited to improper maintenance), or improper repair.

BAKER™ shall not be liable for any consequential or incidental damages arising out of or in connection with a BAKER™ transmission assembly, transmission kit, swingarm, fender, component or part. Consequential damages shall include without limitation, loss of use, income or profit, or losses sustained as the result of injury (including death) to any person or loss of or damage to property.

BAKER™ transmissions, transmission kits, and Wide Tire Kits are designed exclusively for use in Harley-Davidson® motorcycles. BAKER™ shall have no warranty or liability obligation if a BAKER™ part is used in any other application.

If it is determined that a BAKER™ transmission assembly has been disassembled during the warranty period for any reason, this limited warranty will no longer apply.

## **DISCLAIMER**

The words Harley, and H-D are registered trademarks and are for reference only. Use of H-D model designations and part numbers are for reference only. BAKER Drivetrain has no association with, and makes no claim against, these words, trademarks, or companies.

It is the sole responsibility of the user to determine the suitability of this product for his or her use, and the user shall assume all legal, personal injury risk and liability and all other as well as all other obligations, duties and risks associated therewith.

### **CUSTOMER SUPPORT**

For any installation or service questions, please contact our BAKER™ 300 technical department toll free: 1-877-640-2004.